

**CITY OF TUCSON
DEVELOPMENT STANDARD NO. 2-16.0
LANDSCAPE PLANT MATERIALS**

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2-16.0.0 LANDSCAPE PLANT MATERIALS.

2-16.1.0 PURPOSE. This Standard has been prepared for the purpose of establishing plant and seed lists for use with various City of Tucson regulations that either require or regulate landscaping.

2-16.2.0 APPLICABILITY. This Standard applies on development projects, including repair and infrastructure installation, when City regulations mandate the use of drought tolerant or native plant and seed material.

2-16.3.0 DEFINITIONS. Definitions for words used in this Standard are found in the Development Standards Glossary or in Sec. 6.2.0 of the Tucson *Land Use Code (LUC)*.

2-16.4.0 TYPES OF PLANT MATERIAL. Most projects, with some exceptions, are required to be landscaped with either native vegetation or drought tolerant vegetation. The following subsections describe how vegetation is selected to comply with those requirements. For information on any exceptions, refer to the individual ordinance requiring or regulating the landscaping.

- 4.1 Native Vegetation. There are regulations in the *LUC*, such as the Scenic Corridor Zone (SCZ) and the Environmental Resource Zone (ERZ), where native vegetation is required to be retained or where the property is required to be revegetated with native plant material. In these two zones or in any other City regulation listing a requirement for native vegetation or revegetation, the requirement is to be complied with as discussed below.

Native vegetation is defined as vegetation indigenous to the site. Native vegetation, however, varies greatly in different areas of the Tucson basin due to changes in topographical elevation, soils, and availability of moisture. Due to this variation of native plant material, a general native plant list applicable to an individual site within the region cannot be defined.

Therefore, when native vegetation is required on a project, the landscape plans submitted for review must include a comprehensive list of native vegetation that exists on the site and in the immediate areas surrounding the site. Selection of plant material for use on the project will be from that comprehensive list.

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- 4.2 Native Seeds. As mentioned in Sec. 2-16.4.1, the type of native vegetation varies greatly within the Tucson basin. To determine which seeds to use on a project when native seeds are required, a comprehensive list (as discussed in Sec. 2-16.4.1) of native plants must be submitted.

A base set of native seed species is contained in **Exhibit I** of this Standard. This base set is not inclusive of all native plant material. Seeds from that list may be chosen for use on a project requiring native seeds, if the plant is found on the comprehensive native plant list assembled for the property.

If the project does not require native seeds but the landscape design calls for the use of seeds native to the site or region, a comprehensive list, as per Sec. 2-16.4.1, may be submitted for determination as to whether or not they are native. As an alternative (on projects not requiring native seeds), seed selection may be made from **Exhibit I**, Native Seeds. If the proposed seed is not on the comprehensive list, **Exhibit I**, nor in **Exhibit II**, it may be used if:

- A. The seed species is drought tolerant and a seed supplier certification of drought tolerancy is submitted; and
- B. The City can certify through a third party the seed species' drought tolerancy; and
- C. The proposed seed species is not for landscaping public right-of-way, unless it is to comply with SCZ or ERZ requirements; and
- D. The seed species has not been considered by the Arizona Department of Water Resources (ADWR) and rejected.

- 4.3 Drought Tolerant Vegetation. When drought tolerant vegetation is required by a City regulation, such as Sec. 3.7.0, Landscaping and Screening Regulations, of the *LUC*, plant selection is from **Exhibit II**, Low Water Use/Drought Tolerant Plant List.

- 4.4 Drought Tolerant Seeds. Various City landscaping regulations allow the use of seeds within landscape areas. For example, the Landscaping and Screening Regulations allow the use of seeds as a ground cover in lieu of decomposed granite (DG) in such areas as under canopy trees. However, seeds cannot be used to comply with the fifty (50) percent vegetative coverage area requirements of the street landscape border.

In situations where the use of seeds is permitted, selection of seed material will be from plants on the Low Water Use/Drought Tolerant Plant List, **Exhibit II**. Also, if the area that is to be reseeded is not within the public right-of-way, seed selection may be as per Sec. 2-16.4.2, Native Seeds.

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4.4 Drought Tolerant Seeds. (Cont'd)

All plant material used within the public right-of-way is to be from the plant list, ***Exhibit II***, regardless of whether it is plant or seed material. The only exceptions to this are in the application of native vegetation requirements of the SCZ and the ERZ sections of the *LUC* or in compliance with native seeding requirements of the Uniform Building Code grading ordinance.

2-16.5.0 SEEDING PROGRAMS. In projects where seeding is required or is being utilized to meet a landscaping requirement, the items to address, in addition to seed selection, are irrigation requirements, site preparation, and establishment guarantee. Site-specific situations will be addressed on a case-by-case basis. General guidelines are provided in this Standard; however, alternatives may be proposed to the staff reviewing the landscape plans.

5.1 Site Preparation. In order to attain the maximum benefit from the seeded materials, it is necessary to till the soil prior to seeding. The method and use of fertilizers, seeding, mulching, tackifiers, etc., will vary per site-specific situations. The applicant is expected to do whatever is necessary to prepare the site to guarantee plant establishment to the satisfaction of the City.

5.2 Irrigation. The sites that will require revegetation will vary considerably. Some sites with little slope and with soil textures and structures conducive to capturing rainfall or capable of being modified to capture rainfall can be revegetated on rainfall alone. Some sites may require short-term irrigation to achieve plant establishment. The applicant will not be required by the City to irrigate but will, however, be responsible for successful establishment of vegetation using the appropriate seeding/irrigation method.

5.3 Plant Establishment Guarantee. A stand of vegetation shall be considered established when:

A minimum of one (1) perennial seeded species per square foot has rooted, developed true leaves, and is in a state of continual positive growth, and the interspace area between perennial species has a minimum of one (1) annual or perennial plant in any stage of development or growth other than seed.

2-16.6.0 PLANT/SEED LISTS.

6.1 Origin of Plant/Seed Lists.

A. ***Exhibit I***, Native Seed List, was derived from the Low Water Use/Drought Tolerant Plant List as known native vegetation. The list is not inclusive of all native vegetation. For alternative selections, refer to Sec. 2-16.4.2 of this Standard.

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6.1 Origin of Plant/Seed Lists. (Cont'd)

The seed list is established as a guide on how to mix the various types of seeds to provide a varying mix of native plant growth on the site giving it a more natural appearance. The pounds per acre listing is a guide for use by the designer to achieve a minimum growth pattern to the seeded area. Specific rates are based on the seeds that are used in the mix. The seed mix is to be certified by the seed supplier as to the growth coverage projected.

- B. ***Exhibit II***, Low Water Use/Drought Tolerant Plant List, is prepared for use within the Tucson Active Management Area (TAMA) by the ADWR.

6.2 Modification of Plant Selection. In order to use plants not listed in ***Exhibit II***, Low Water Use/Drought Tolerant Plant List, the plants are to be approved through the following process.

- A. Any person seeking to add or delete a plant or plants from the low water use plant list may submit an application for modification of the list at any time to the Director of the ADWR. The application is made on a form prescribed and furnished by the Director of the ADWR.
- B. The ADWR Director reviews each request for modification of the low water use plant list. The Director may request additional information from the applicant and may seek information from other sources as may be necessary to determine whether the list should be modified.
- C. If the addition of a plant to the low water use plant list is approved, the ADWR Director will place the plant on a supplemental list as an addendum to the low water use plant list. The supplemental list shall be available upon request from the ADWR.
- D. If the ADWR Director approves the deletion of a plant from the Low Water Use/Drought Tolerant Plant List, the deletion from the list will be issued with the annual modified review plant list.
- E. The ADWR Director conducts an annual review of the low water use plant list and issues a modified plant list. As a result of the review, the Director may add or delete plants from the list.

6.3 Updates of Plant Lists. The plant and seed lists will be updated as necessary to provide the most current plant list based on Sec. 2-16.6.2.E.

2-16.7.0 EXHIBITS.

Exhibit I - Native Seed List

Exhibit II - Low Water Use/Drought Tolerant Plant List

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**EXHIBIT I
NATIVE SEED LIST**

SPECIES

<u>Botanical Name</u>	<u>Common Name</u>	<u>PLS* Rate lbs/acre</u>
Aristida purpurea (P, W)	Purple Three-Awn	2.0
Plantago insularis (A, C)	Indian Wheat	3.0
Senna covesii (P, W)	Desert Senna	2.0
Sphaeralcea ambigua (P, C/W)	Desert Globe-Mallow	1.0
Sporobolus cryptandrus (P, W)	Sand Dropseed	1.0

Plus choose a minimum of three (3) species from the following six:

Acacia constricta (P, W)	Whitethorn Acacia, Mescat	2.0
Ambrosia (Franseria) deltoidea (P, C)	Triangle-Leaf Bursage	4.0
Atriplex canescens (P, C)	Four-Wing Saltbush	3.0
Encelia farinosa (P, C/W)	Brittlebush	1.5
Haplopappus (Ericameria) laricifolius (P, C/W)	Turpentine Bush	1.0
Larrea tridentata (divaricata) (P, W)	Creosote Bush, Greasewood	6.0

Optional recommended species:

Acacia greggii (P, W)	Cat's Claw Acacia	2.0-3.0
Atriplex lentiformis (P, C)	Quail Bush	1.0-2.0
Atriplex polycarpa (P, C)	Desert Saltbush	1.0-3.0
Baileya multiradiata (P, C/W)	Desert Marigold	1.0-2.0
Bouteloua curtipendula (P, W)	Sideoats Grama	2.0
Cercidium floridum (P, W)	Blue Palo Verde	2.0-3.0
Cercidium microphyllum (P, W)	Littleleaf or Foothill Palo Verde	2.0-3.0
Eragrostis intermedia (P, W)	Plains Lovegrass	1.0
Eschscholtzia mexicana (A, C)	Mexican Gold Poppy	1.0-3.0
Leptochloa dubia (P, W)	Green Sprangle-Top	1.0
Phacelia campanularia (A, C)	Desert Canterbury Bells	1.0-2.0
Prosopis velutina (P, W)	Velvet Mesquite	1.0-2.0
Psilostrophe cooperi (P, C/W)	Paper Flower	1.0-2.0
Setaria macrostachya (P, W)	Plains Bristle Grass	2.0

*PLS = Pure Live Seed

KEY: A = Annual; P = Perennial; C = Germinates and thrives in the cool season; W = Germinates and thrives in the warm season; C/W = Germinates and thrives in cool/warm seasons.

NOTE: The cool season in Tucson runs September through March, and the warm season is from March through October. There is an overlap of seasons.